CLAIM AMENDMENTS

Claims 1-19 (canceled)

Claim 20 (previously presented) A widely tunable laser apparatus comprising:

a substrate comprising a semiconductor material;

at least two resonator sections formed on the substrate, wherein each of the at least two resonator sections comprise one of a transmission filter and a reflector; and

a two-sided active radiation-generating section formed on the substrate, the at least two resonator sections being coupled with a single side of the two-sided active section,

wherein each of the at least two resonator sections comprises a waveguide system, each waveguide system operatively having spaced resonant maxima points, so as to provide one of a maximum transmittance and a maximum reflectance when subjected to energy of a frequency corresponding with one of the resonant maxima points, and

wherein at least two spacings of the plurality of resonant maxima points are differently spaced in the frequency domain for at least two of the resonant sections.

Claim 21 (currently amended) The apparatus of claim ~~21~~ 20, wherein the spacing of the plurality of resonant maxima points in the frequency domain is different for at least two of the resonator sections.

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Claim 22 (currently amended) The apparatus of claim ~~21~~ 20, wherein, at least one of the resonant maxima points of each of the at least two resonator sections are adjustably ~~overlapping~~ overlapping.

Claim 23 (currently amended) The apparatus of claim ~~21~~ 20, wherein the active section creates a light beam as a result of spontaneous emission over a bandwidth around a center frequency and guides the light beam.

Claim 24 (currently amended) The apparatus of claim ~~21~~ 20, wherein the active section creates a light beam as a result of spontaneous emission over a bandwidth around a center frequency and optically amplifies the light beam.

Claim 25 (currently amended) The apparatus of claim ~~25~~ 24, wherein the apparatus produces a combined reflective action and the optical amplification causes lasing at at least one of the wavelengths associated with one of the reflective maxima points.

Claim 26 (currently amended) The apparatus of claim ~~21~~ 20, further comprising a power splitter for coupling one or more of the at least two resonator sections with the active section.

Claim 27 (currently amended) The apparatus of claim ~~27~~ 26, wherein the power splitter is coupled with the active section via a first side of the power splitter having a single port

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and coupled with the at least two resonator sections via a second side of the power splitter having a plurality of parallel connections.

Claim 28 (currently amended) The apparatus of claim ~~21~~ 20, wherein only a single resonant maxima point of each of the at least two resonator sections overlap.

Claim 29 (currently amended) The apparatus of claim ~~21~~ 20, further comprising one or more phase control sections coupled with at least the active section for adjusting a round trip cavity phase of the apparatus.

Claim 30 (currently amended) The apparatus of claim ~~21~~ 20, further comprising one or more phase control sections coupled with at least one of said two resonator sections for adjusting a round trip cavity phase of the apparatus.

Claim 31 (currently amended) The apparatus as recited in claim ~~21~~ 20, further comprising a current source coupled with the at least two resonator sections for injecting current into one or more of the at least two resonator sections, so as to cause one of a transmission characteristic and a reflection characteristic to be shifted in wavelength.

Claim 32 (currently amended) The apparatus of claim ~~21~~ 20, further comprising one or more phase control sections coupled with one of the active section and the at least two

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resonator sections, wherein the phase control sections are employed to adjust a round trip cavity phase of the apparatus.

Claim 33 The apparatus as recited in claim ~~33~~ 32, further comprising a current source coupled with the one or more phase sections for injecting current into one or more of the phase sections, so as to cause the roundtrip cavity phase of the apparatus to be adjusted.

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